1. Record Nr. UNINA9910253905303321

Titolo	Phytoremediation : Management of Environmental Contaminants, Volume 3 / / edited by Abid Ali Ansari, Sarvajeet Singh Gill, Ritu Gill, Guy R. Lanza, Lee Newman
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-40148-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XV, 576 p. 88 illus., 57 illus. in color.)
Disciplina	572.572
Soggetti	Botanical chemistry Plant ecology Plant physiology Soil science Soil conservation Environmental chemistry Pollution Plant Biochemistry Plant Ecology Plant Physiology Soil Science & Conservation Environmental Chemistry Pollution, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Phytoremediation of Mining Areas: An Overview of Application in Lead and Zinc Contaminated Soils -- Phytoextraction of Heavy Metals by Fast-Growing Trees: A Review -- Biological Approaches for Remediation of Metal-Contaminated Sites -- Biosorption of Heavy Metal from Aqueous Solutions -- Aquatic Macrophytes for the Removal of Heavy Metals from Coal Mining Effluent -- Heavy Metals Accumulation Ability of Wild Grass Species From Industrial Areas of

Kazakhstan -- Bio-Based Methods for Waste Water Treatment: Green Sorbents -- Metal Hyper-Accumulators: Mechanisms of Hyper-Accumulation and Metal Tolerance -- Current Technical Perspective and Application of Aquatic Weeds in Phytoremediation -- Constructed Wetlands: Role in Phytoremediation of Heavy Metals -- Phytofiltration of Metal(loid)-Contaminated Water: The Potential of Native Aquatic Plants -- Phytoremediation of Heavy Metals Contaminated Soils Through Transgenic Plants -- Role of Phytochelatins in Phytoremediation of Heavy Metals Contaminated Soils -- Role of Biochar in Remediating Heavy Metals in Soil -- Heavy Metal Uptake and Tolerance Mechanisms of Serpentine Flora: Implications for Phytoremediation -- Phytoremediation: Uptake and Role of Metal Transporters in Some Members of Brassicaceae -- Phytoremediation of Shooting Range -- Potential Promising Set of Plant-Microbe Interactions for the Revegetation of Open-Pit Mining and Smelting Areas in Brazil -- Phytoremediation of Arsenic-Contaminated Soils Using Arsenic Hyperaccumulating Ferns -- Phytoremediation of Boron-Contaminated Sites.

Sommario/riassunto

This book details the plant-assisted remediation method, "phytoremediation," which involves the interaction of plant roots and associated rhizospheric microorganisms for the remediation of soil contaminated with high levels of metals, pesticides, solvents, radionuclides, explosives, crude oil, organic compounds and various other contaminants. Each chapter highlights and compares the beneficial and economical alternatives of phytoremediation to currently practiced soil removal and burial practices.